Chunks of form - planes & contrapuntal areas - to produce solid rhythm

line per se only
but not to be
unless abstracted

B

A

Zinc

1 blanket - laid down

Zinc

plate

paper

3 blankets

1st imp - paper face up -
plate face down
rubber or other protector

2 blankets

print

emblem

quiet

vs. full

powerful simple designs - strong color

Burnishing a small spot often does more harm than good - as it makes a shallow depression that fills with ink -

polish burnished spots

& Vaseline the plate.

Under a very thick 2
quite small plate -
place 1 or 2 blotters
under it to equalize
pressure -

---

paper (edges first)
Should be uniformly
damp -

---

mark position of
plate & paper on
bed of press -

fine solid brush -
dry brush

pure chalk line on black.

crayon - (hard).
varying pressures -

divide the background area?

design of lights

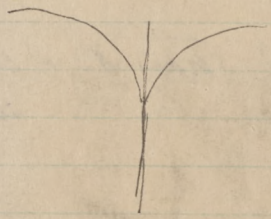
drawn with brush
modeled with crayon

Start tentative with chalk
force with brush

The essence of God is one but his face is variety & movement within a stable frame – & sometimes without frame. limits & infinity

May

upright vertical structure – supported on a central axis with bilateral symmetry characterized by flexible limbs and rhythmical movements to maintain balance & unity



forms of growth & function in space

(forms filling space with variety & invention for various purposes following an inscrutable law – of nature)

proportion – movement – taper

proportion as a result of movement?

group rhythms – elaborate minor rhythms of varied but similar rhythmical shapes – under in group – action & repose – parts & wholes –

Torso —

1 straight line —

2 taper — (archaic)

3 baroque — curvilinear

4 balance of straight + curve —
see Miro.

Bruno explains Harth's technique
of conical method of dealing
with concavities.

tiger: press
gear 12 down
light 11 "
1 blotter under
3 " above

Torso - (Back)

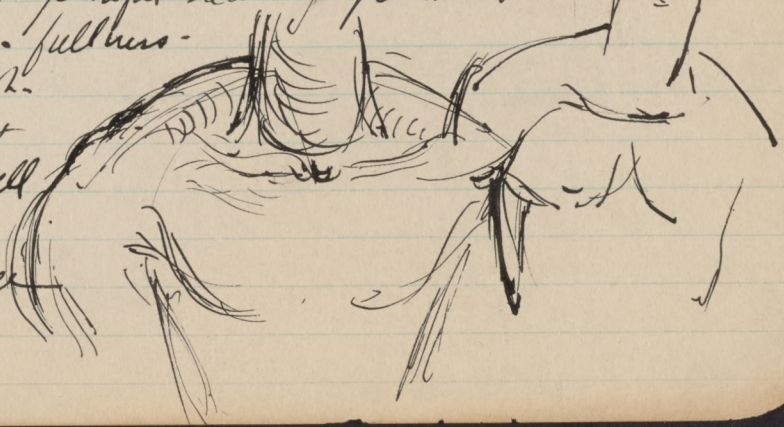
can curve & bend forward strongly, backward less, so on the ground when seated, the cylinder of the body can may bend forward, the movement extending into the arms - which may hook over or around the knees at the elbow - The large top plane reaches an approximate end at the lower insertion of the trapezius - whereas in standing the top plane of the body ends at the spine of the scapula -

when a shirt or other thin material covers the back, the & the body is seated & leaning forward the main masses discernible are the twin tubular columns of muscle on either side of the backbone

Torso- Front.

A figure coming forward against the light takes a band of light on the trapezius behind & the clavicles in front - a dark shadowy triangular depression occurs between the two on either side of the cylinder of the neck which rises & brings the backbone slightly forward in the adams apple & related structures.

quality of youthful healthy flesh- seen out of doors firmness- fullness- warmth- sheen & shine as well as down & dull brilliance odor.



certain shallow modelling / hollows - each bearing / a relation to the other - but not cutting too deeply into the main form - / the existence / (artificial or architectural) subjacent planes - a volume lies on or in a plane.

Extensor tendons to toes are sharply marked as the leg + foot are lifted up + forward in walking

Line or lines looping ant'g iliacus to lower leg - consult anatomy

figures swimming in mountain lake

jet black + mars brown on middle tone -
lights warm + high against sky reflect -
touches of blue black shadow on warm flesh -

swimmers seen on shore of a mountain lake -

lights - broad + high - hardly broken by halftone -

shadows - dark - + simple -
but reflected light evident -
if from some colored surface -
then certain planes are strongly colored. of the whole body is seen contre-jour
the shadow tone is lighter + more colored - a semi pale (in color) luminious tone - the cast shadow is a very dark bluish black - local color appears near the light - on sunburned skin the lights appear cool -
as against the academic formula -
warm lights out-of doors -

Portions of the flesh seen contre-jour are semi-transparent + show

blood-fire color- + cast such a light on adjacent portions--.

Some bodies burn a cool ruby- with dusky neutrals- others are more in the orange + yellow orange scale-

lights on wet flesh are of course highest- + show a lustre beyond all others- even when seen in the distance- (plastic problems involved)

(cache)
structure (type) or norm or ideal
deviation from -
create own light & form through
color-planes.

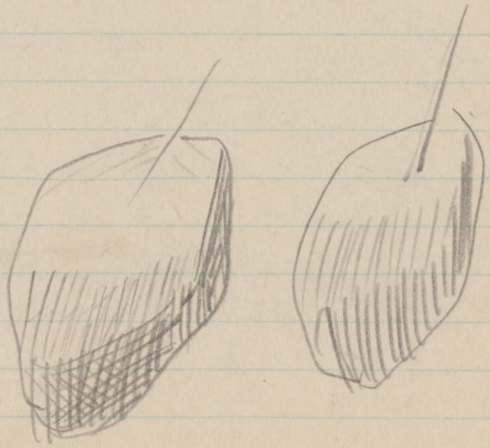
rather than wait for recurrence of
same pose (useful in study)
catching a movement etc.

false solomon's seal has a very distinct full sense of form - different axes of stems in space - sessile full cupped & veined leaves - set spirally on the stem - strong foreshortening & light & shade

form defining space.

Tahoe

Morning sunlight in the mountains seems quite pure white - very slightly warmed on tree trunks, and greyed as it etches around leaf edges. Cold & extremely high ~~in~~ leaf lustre on polished leaves, lying in thick patches of madder grey silver or white on pine needle / branches near their central junctions. Against blue sky edges of needle masses are outlined in high but warm silver - (each needle theoretically takes an edge) but the centers of the needle masses appear to fuse with plates of silver laid on - Generally speaking the effect is similar to / Constable's falls & touches of pure white light through nature - / fringing the sky down into foliage and ground &



sound of voices -- hushed + sibilant
quiet conversations on small lakes
in the mountains - with blooming
plants + shimmer of insects
in light - quiet - solitude -
contemplation -

Light - air as medium -

The ambience of the out of doors as
a medium for form - form
has a different significance in
media affected by different forces.

The effect of a circular space
out of doors - accented by
a lake set among mountains -
a bowl filled with light in
which figures move.

desert mountains - Leonardo.
also different conical forms.
Virginia City

Minerals + rocks - beside
showing color + structure
exhibit brightness values -
Lustre plays a part! + of contrast richness
Sometimes comes from
within - as well as
from surface - Thus The clear jewel in the mica
giving richer values than
say - lustre on leaves -
see Leonardo -
(make a study of this)

The whole plastic problem of natural +
artistic brightness range is involved -
i.e - abstraction + approximation +
usefulness of light textures - incidences,
angles - qualities - contrast etc.

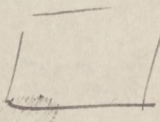
etching music

black (velvet)
fine close deep lines but not over bitten

high dark (coarse lining)

middle (softer + closer)

light (fine + delicate



treble (blanc)

The most distinguished results in etching are probably a result of pure open line - Rembrandt. Manet - Meryon.

a touch of aquatint is allowed but secondary. - Manet - Goya.

This is preferable (contrasting bitten texture) to roulette or mezzotint devices - has more style + character - less imitative quality.

Did Samuel Palmer use the
roulette or was his method
minute touches of the needle?

The softness of the copper
seems less important than
its clear metallic quality.

Even Picasso's line etchings
seem too close to the pen
& lacking in relief compared
to Manet. That is - certain mss.
later ones.

Engraving Etching Drypoint
tone + auxiliaries.
Creative idea → technique → new imaginative experience

form + the way.

"L'oiseau noir dans le soleil levant"
Claudel

When the press is not in use, it may be oiled + the rollers + bed plate wrapped in waxpaper

A treatise on Etching. Maxime Lalanne
Am. Edition by Koehler
London W. + G. Foyle Ltd.

The art of Graveing + Etching
William Faithorne
London 1662 - 8 vo. Ill.
incl. the manner + method of Callot + Bosse

Blake - Moffet + Towne - tag - board -
Arches - or hard surfaced paper for etching

Zellerbach - tag paper - backing paper (Mr. Eardley Carmel)

Fischer Engraving Co.
Calif. Ink Co.
Pacific Ink Co - cloth rollers with aluminium core -
Tarletan - unbleached muslin - no sizing

high stool - determine exact height for inking table -

Blankets - felts 26 X 18½" Cronite -
407 East Pico Blvd.
pure white duck canvas - L.A.

tracing paper screen for working on copper
cuts reflections (Mr. Bertland)

Press

Mr. Sinclair - printer

very light oil for press - Tripack does not gum.

bring up the pressure sensitively
avoids blanket to use too much pressure
pressure must be varied for different size plates —
more for small plates — less for large sizes
be sure the pressure is even -
inside calipers
plate mark

there may be no resilient layer on the steel bed - such as zinc - masonite - a blotter - there may be only a sheet of tissue paper - then the plate - the proof paper - and then sheet of tissue - one blotter - then the felts. Hansen says he never wets or soaks his felts & has used one set for years. Sinclair says not to use too much water in the paper - well damped but not wet.
properly damped paper dries with not so much cockling.
damped for some time - so that no excess water is left - dried between blotters
a moderate pressure is sufficient for after immediate wetting.
good drypoint -
to compel print from blotters.

Excessive pressure is not necessary for etchings - but a good strong even pressure is important.

damp the first blotter backing
(very good with soft old papers)

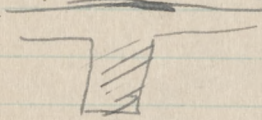
fela
Naples Soaps - tag board -
for differences in pressure + printing

imperfect hollowed plate back may
be filled with tag paper (or wood pastes?)
+plastic

for change on surface print you can
cut out tag board backing -
find position with scribe (hooked needle)
to scratch position -
either deepen or lighten.

cut out underneath
patch for commercial to deepen
pressure + step up print.

run pieces of paper
under the zinc plate for pressure.



plain Rein paper

dry paper by sticking it with tape on
card board. It dries stretched.
On a large edge folded over plate glass -

after drying it may be lightly steamed between
blotters with an iron — or sponge back of dry
wrinkled print carefully + repeatedly until fibres are limp
+ moisture is absorbed. place between clean blotters + let
dry in press or under weight. Do not overwash
as water retains dirt better placing between blotters.

grounds.

Spread the ground with clean printing muslin before dabbing or rolling - or simply melt patches from ball- (covered with taffeta or not)-

This transparent ground to complete a plate - but stop out all other parts not to be reworked- as this ground is dangerous + breaks down easily-

taffeta silk.

* Transparent ground in balls - Lalaune
5 parts by weight of white wax
3 " " " " gum mastic
melt wax first in small pieces - add powdered mastic - gradually. Stir all the while with clean glass rod. Drop in tepid water + make balls - clean pot glazed inside. Let boil up 2 or 3 times use double boiler.

* do not use rubber roller with etching paste
etching paste = ordinary etching ground dissolved in oil of lavender as stiff as cold honey used for varnishing melt part of ball in pot - add oil drop by drop - mixture when cool = pomatum - try on cold slab.

try using Russell ground as a stop-out -

Dabber. <(203)> stout cardboard - lay on a bench of horsehair free of all dust - and over this again some cotton wool - cover with 1 or 2 pieces of clean taffeta - draw together tightly over the cardboard & tie with a string - (the horsehair may be omitted)

Thin wax tapers - twist 6

melt the ground Thin the silk - a Thin ground is good -

Lay plate down on its face on a little pile of soft paper made of a smaller size than the plate when stopping out back & edges -

* Reworking ground - warm the plate - drive the ground well into the lines with dabber or clean printing muslin - wipe the surface with printing " & cool - I lay a paste ground -

Rives double white wove
takes four spongings at
least + holds
a good deal of water -
It is a beautiful paper -

Arches laid is a good
hard paper + takes
a wet dampening -

a pure white paper is usually
bleached -

laid for line - wove for texture
(general

Kochi should be well damped but not too wet as it is softer than Shogun — it creates a more delicate print — Shogun having more of the quality of a heavy vellum — it prints very strong + sensitive but inclines toward a certain heaviness or sootiness if the inking + wiping is not well controlled — + could easily produce a dead heavy effect — Though it has a correspondingly greater depth in the blacks —

Kochi — damps once or twice — sponge $\frac{2}{3}$ full — or pass thru water bath + later blot + air dry — will rub up if sponged twice —

Hosho — use damp blotters.

Paper

Damping Characteristics

Van Gelder Zonen - ivory laid

should be well damped - full + expanded but not overdamp - will print just right if allowed to dry a little after a good damping

Van Gelder Zonen - cream rough

B.L.K. Norwegian greenish - white wove for drypoint - Soak well + evenly overnight but be very careful not to overdamp - easily holds too much water - (even with no loose water appearing) + causes spots - blurring - loss of blacks + weak printing generally.

Stevens - Nelson Co.
Japan Paper Co.
N.Y.

Italian - French - Dutch -
Catalogue - SHOGUN light + heavy / for drypt -

Soak in water overnight
be sure it doesn't shine (too wet) + brush up a little after placing a pack in a stack of blotters + cover with " " "

Heavy Shugum for drypoint
not too wet.

A. Mill Bourne - hand-made in England -
hot pressed if desired -
heavy white wove -
do not make too wet or water will
roller before the roller & the lines
will be mashed.

Howell white linen for engraving
not too wet + color
Jap. vellum "

---

heavy arches for etch -
not too wet.

to transfer wet - for a positive proof -

use an F or H.B pencil to trace design on good tough tracing paper - soak the design in a tray of water - blot it gently between dry blotters - place the plate grounded side down exactly in the centre of the now enlarged design - fold ~~left~~ 2 edges over on back of plate - place the plate picture side up under a blotter & blanket & ~~pass~~ through the press under light pressure -

To change a line —
dissolve a small quantity
of tall ground in
turpentine & apply this
mixture with a soft brush to
the area to be corrected —

to transfer a design from
an old to a new plate

ink & print a proof in
white oil plate —

Lay damp proof over new
plate & cover with Blotters
& Blanket & run through press —
do all this rapidly —

*

Japanese paper, while it must be thoroughly soaked, should not be printed on too wet - especially with a heavy shogun (Tomioka) or a vellum - Shooting will occur, & even on the lighter papers the ink will not be picked up so well, & some blurring will occur -

It is well to remove the papers from the overnight bath & stack in blotters, & do not place soaked or very wet blotters in the press as a backing - as that will force the water back to the plate. See Lumsden page 145 for the native japanese method of dampening

papers + damping

(warm?)

papers for etching - cream colored + hard-surfaced white - varied types. i.e. Douglas Howell

to damp - put paper overnight between pieces of pure white duck canvas which has had the lint worked out of it, + has been wet + wrung out then weights are placed on top -

paper may be placed between papers + glass + weighted - tissue paper is good

or soaked 10 min - + then placed between blotters - It is well to blot very wet paper before printing - such as Japanese paper which has swollen like vellum -

---

1 Drying | Some prints suffer because of wrinkling - after the ink is thoroughly dry (2 or 3 weeks) the print can be wetted and placed under pressure - (letter-press) to dry flat. Hansen says one blotter in the press is sufficient - he does not favor the drying of the print on the blotter, but pulls it off immediately -

(cards) drying between sheets of brown paper trays of masonite separated by 2 glued (wooden cleats -

design transfer in vermillion (powder)
to black ground

there is a paper for this purpose

diamond for greys - burnisher for greys

steel for blacks

reduce area with charcoal for
light + distance
silver greys - use Coat,

In preparing etch plates for grounding
do not leave drops of the acid-water
cleaning solution on the plate to
dry on the heater as the drops leave
rings that affect the ground &
spot the plate in the biting.
leaving prick rings & shadows
to bite. Clean off drops that are
left with brush & blotter.

any acid used to clean tarnish
from dry points is dangerous to the
burr (in spite of advantage of rubbing.
This applies even to vinegar + salt
very weak acetic?

rub a drypoint lightly with a soft rag soaked in vinegar + salt solution

oil + putty powder + polish with a felt around the finger for plain areas -

18 gauge - fairly thick

plate rack for storage

The uses of beeswax on plates

plates can be wrapped in new blotting paper.
or tissue + an outer wrap of heavy paper

can be vaselined.

plates may be wrapped in tissue + flannel.

plates should be well bevelled with file, + the edges then burnished so they will not easily nick (depending on design) collectors don't like an edge that carries much nick - a professional bevel with a polisher is good - being careful not to go over on to the plate surface.

a plate can be easily cleaned with acetic acid, + washed with kerosene - inking rollers + rubber rollers should be cleaned with kerosene or ether or chloroform.

Superficial stain on the plate will not spoil printing.

When filing + cleaning with whiting on the inking table be careful to clean off filings + dust before inking begins.

round bevel - corners
crocus cloth -

plate margins - bevelled or plain =
inked or clean
ruled line faint or none

wiped clean -
Smoothed with scraper + polished

protect plates with beeswax against damp =
" copper " paraffin (ceresin) " " =

red copper for engraving - 300 copies

Hard copper for etching 1000 copies after Nickel chrome plate.

crystalon for a scratched tone

sharp edge to depress or indent

drawing to edge - irregular -
or ruled within a margin
heavy ribbed paper for indent -

be careful not to cut the paper

buy a vise to attach plate to table for grinding down etc.

ruled margins - for black line -

treat surface - Lembruch -
for plane + unity

paler ink ?

hydrochloric?
muriatic acid (pure white)
acetic acid
chlor-
kerosene } to clean?

charcoal → burnisher with
rouge thin film of oil
brilliantshine along scratch
turps a few well-directed
strokes

diamond for grey - steel for black

Tools. reduce an area for grey -

scrapers need to be clean-edged, but do not need to be sharpened too often.

the sharpening of the drypoint needle -

a double flange line -
single & strong
single & saw edged -

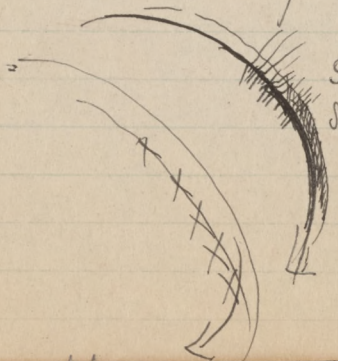
diamond for fine work - & greys
curvis
rapidity

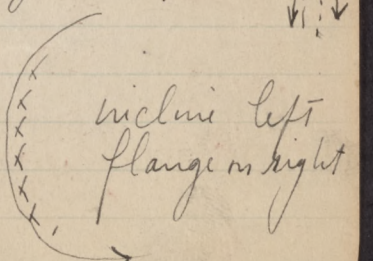
burr.

sharp-straight - double - heavier on left -

double & fine
point against direction - side of point
flat & shallow

inclines right - flange on left





burnishes for taking off bur -

There is a slight bur from engraving
that should be burnished off
Esp. on the outside of a curve

In engraving turn the plate with
the left hand -

do all the work with the left hand
hold the burin still in the right hand
flat.

Try crocus paper for a
scratch surface —

Ruby Drypt.

synthetic ruby = ruby hardness
Rapidary or jeweller
get chips - for greys.
place in surgical hypodermic or
have Mueller make an instrument.

carborundum - chisel pt - for
intermediate greys -
(They come in a bunch form (Niagara ?) -

diamond - darker + harder

Steel - darkest + most violent

Tools

reduction Jareas with charcoal.

To sharpen an etching needle -
roll it along the surface of an oil stone
between the palms of the hands -

keep scraper sharp & corked - sharpen by
rocking from the point upwards To
keep the L -
test the scraper edge on the finger nail for perfect smoothness & lack of burr -
my needle with the twist in the center
of the bar is a drypoint -

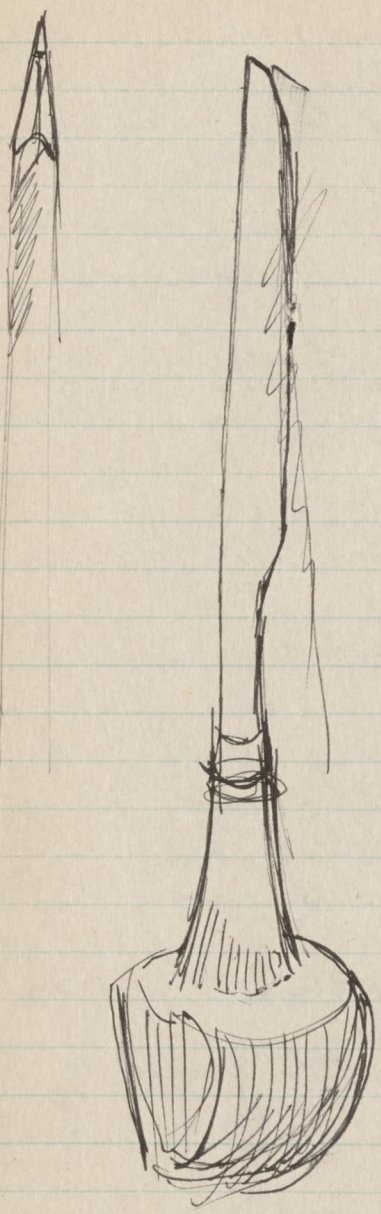
rubber pad & sand bag for burin work

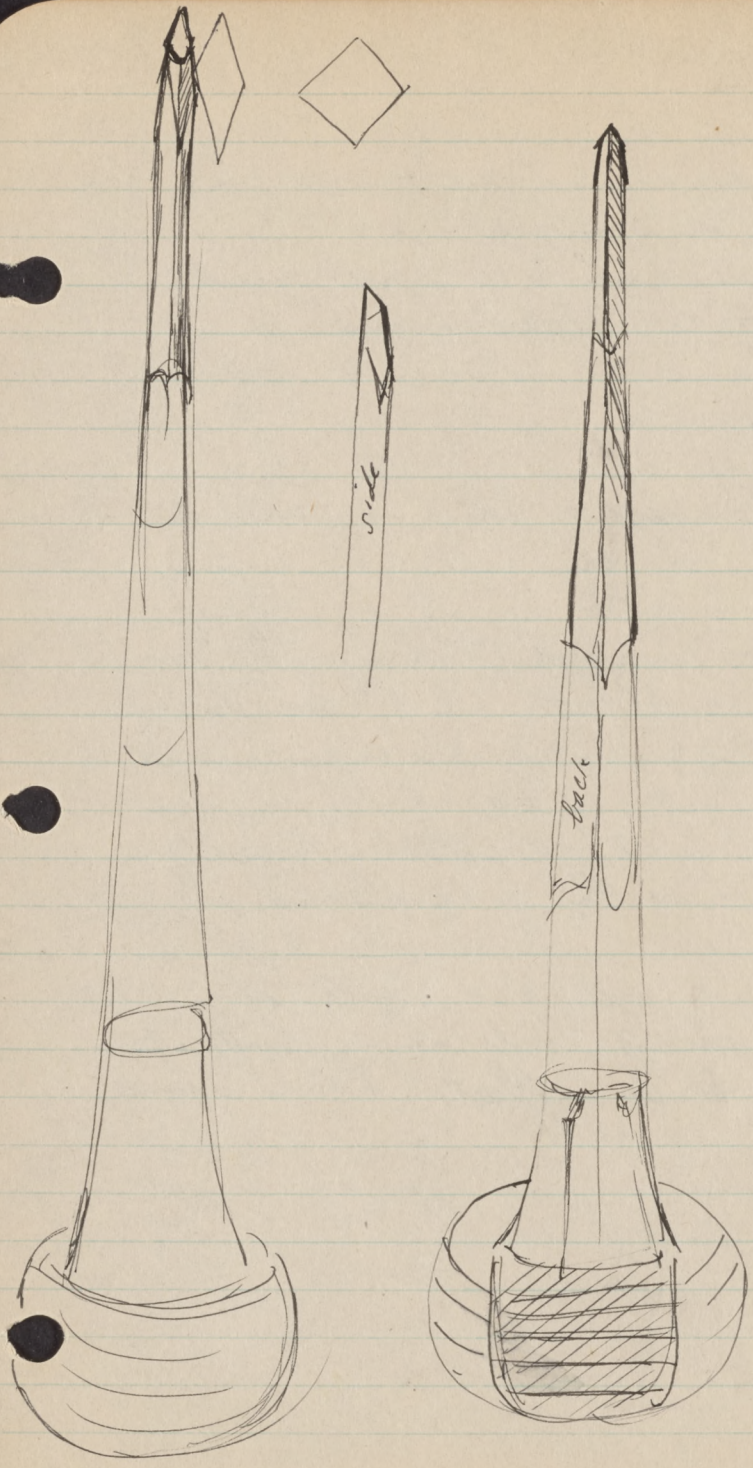
Snakestone broad & narrow

brush copper filings off the plate
with a soft brush - not rag.
grind the drypt. with flat faces
drypt. one drypoint - chisel shaped -

burin & drypt. for valuable contrast

do not allow a cutting point to remain on a
coarse etching needle. See that it is well-
rounded.


bladed underside



ink rollers -

In line engraving no tone is ever left on the surface, & retroussage is never used. The plate is clean wiped & almost always the ink used is black -

No retroussage is used in mezzo & none or very little in aqua except to increase the density & liquid. Do not exaggerate drypoint burr quality of the blacks - smudging and blotting out of the infinitesimal dots of light is a danger, as these dots of light - even when hardly visible give life to the blacks -

Aquatint will give depth & transparent delicacy, but it has a flatter effect & more dense than

Ink

for burin, add a little raw oil to the ink

ink should be stiff. esp. for drypoint

use plate oil - or lt. stand oil - (good)

~~O Stan oil~~

heavy ink - Frankfort black - (~~oil soot~~ vine black)

cloth ink rollers can be soaked in ~~mutton tallow~~ which is greaseless. It should be hot but not boiling) -

dip and roll - do not burn or touch the bottom of the pot - then dry - it preserves the roller & makes it easier & clean -

cloth rollers with aluminium core

Inking rollers can be cleaned with - kerosene - ether & chloroform -

raw oil + varnish -

raw sienna will weaken the ink, & it is transparent. For a green black - black, prussian & r. sienna

to secure a plate on bed
of press if it is wished to
take the plate in the press -

take a piece of tag paper
cut to come up almost to edge
of plate - cover it evenly
with pels - napoha soap - on each side
& stick it to plate & press - bed -

ink on large slab - rolled
out thin from pile -

Tinting with a stiff rag.

after hand wiping - go over the plate
somewhat more heavily with stiff
muslin. The pressure ensures that
the ink taken up out of the lines
is retained - the lines are
enveloped without obscurity -
the proof is supple & velvety -

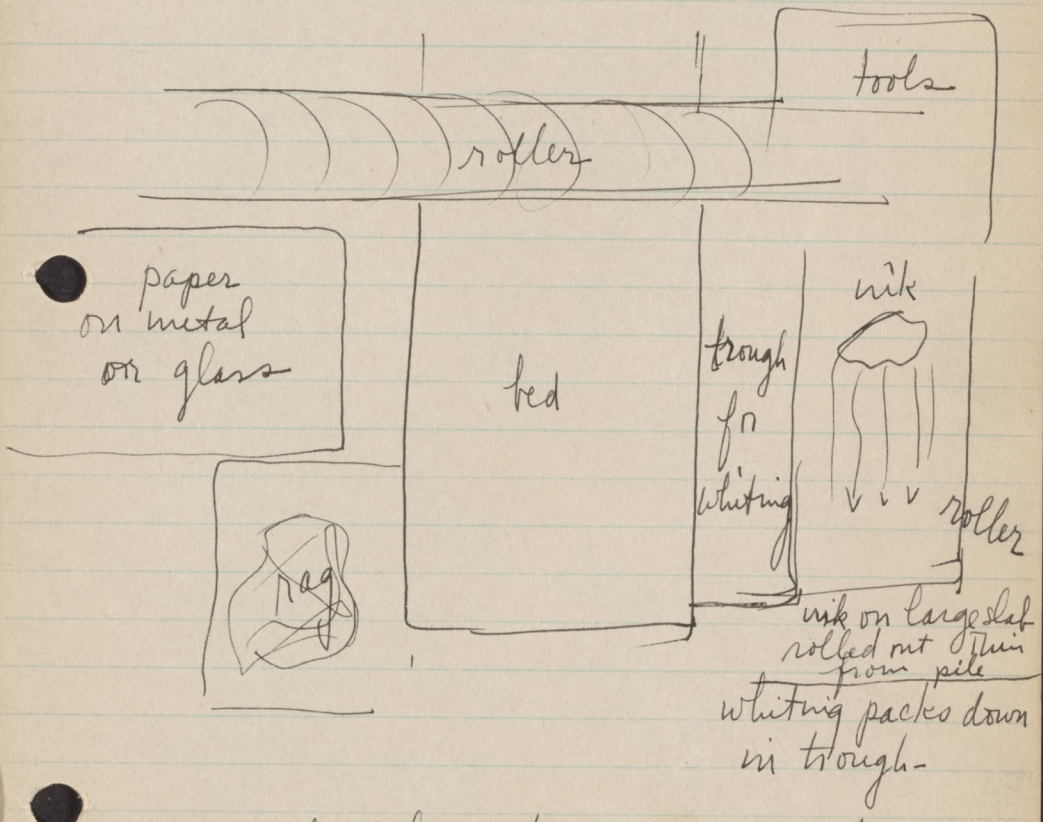
Épreuves Volantes (Leaf).

N.Y. Kimmel & Voight, 242 Canal St.
Boston J. H. Daniels 223 Washington St.
1880

Inking - + wiping

hand
○ rag + finger wiping - a slight dust of whiting

The rag - wad of tarleton - no flat folded wads - The hand moves over The plate - does not lift off -



very little heat for ink - only when needed
rag on left on its own place
used in left hand -
right hand used for ink + wipe
palm + fingers - flat of whole hand

There are 2 rags - one of them well inked
The inked rag sets in one place
which is naturally inky -
the clean rag is apart -

(a piece of adhesive over the
roller will pick up a small
print or card. The roller is covered
first with a felt -)

Drypoints print characteristically
well on Japanese or on
wove rag -

open-line etchings on a laid
paper - ~~extraordinaire~~

canvas stretcher covered with tracing paper & hung forward ~~engraving~~

At the start of inking the right hand palm is inked with the roller - This develops into a packing as the palm is laid on the whiting & wiped over the inked plate - & then on the apron - the hand is rolled on the roller -

whiting dries the ink on the hand a little bit will dry the ink -

the ~~hand is~~ hand is wiped off on the heavy blue denim apron -

very little whiting - the less the better - only when needed for brilliance & to prevent smearing -

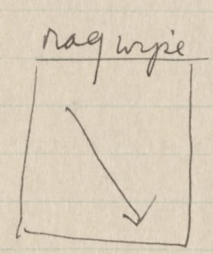
roller back & forth - rapid & simple wiping -

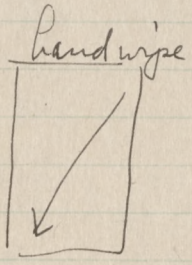
(simple) Rhythm – for engraving

(1) inked roller (inked in ink rolled out thin from pile) back + forth on plate

(finger inking of new lines + then rerolled)

(2)





with left hand wipe with inked rag right hand laid lightly on whiting pack – wiped on apron 3 times circular (wipe with clean rag)

(3) wipe plate with hand – which is lightly laid on whiting once after every wipe of plate –

1 rag – 2 hand

or 1 rag – 1 rag – 2 hand

(The rag wad is sometimes safety-pinned on the back)

soft woolen cloth - flannel
for wiping edges of the plate
about 12 x 4"

2 woolen rags (3) for paraffin
to be made in to cleaning pads

* stopping completely from time to time
when putting a plate through the
press is undesirable. These pauses
are apt to show in the proof as bars
of heavier tone or stronger lines
Even motion is the best - +
even pressure - even rate of travel of the bed.

If you print in brown or sepia
it is often useful to wipe off
with a muslin that you have
used for black ink. It will
give a darker proof. You
can "break" your lines in
this way.

Be careful of overcleaning a
passage with finger & whitening,
as sometimes you get a
naked look in the lines

Let the plate go warm into the press.
with masonite instead of zinc. It
does not cool so fast.

redwoods. perchloride 40°

(6)
(4) (10)
5
5

3-5 mixture 1/2

4 mono lights
8 lower sky
15 upper sky (20)
20 lower branch
30 upper branch

6 monolights
6 about them
4 " "
4 lower sky
5 upper sky
5 lower branch

---

make gathering plants perchloride & room temp 75°-77°

(8) sky + light markings 78°
(3) (11) finds + edge of hair
(5) + plants
(16)
(26) 11
(10)

perchloride scheme 3

3 – (6) – ~~[illegible]~~ (to 8)

7–8

interval

to 10 to (15) | This interval 3 4 must be strong –

(11) (15) (20)

(20)

(30) – (35)

45?

(12)

(15)

3

6

6

(27)

Nov. 11

Bull- nitric bath

sky- 10 ~~8~~ (or)

middle distance- 10 to 15

foreground- 35- ?

Bull- 30- ?

Partington boat

perchloride bath- 70° F. 40° B

sky 10 min.

sea - cliff - birds 15 min

ship 20 min

foliage 35 min

½ nitric painted on foliage 5 minutes (or more)

pure nitric " 90 seconds

Battle ships - English copper gives white
perchloride of iron - 38° D 72° F
Nitric

5 min. sky lines - white boats
Some water lines

10 min. water lines - Sea line

30 min. Battle ships - birds above
& air planes - launch

45 min. - fishes boat & fishermen

---

pure nitric 1 min. on net - +
touched on face of man -

---

dry soft touches - under white
boats; water to left of net - under
fishes boat -

Heavy sleeper & upright walker -
weaker " as above very 70°
11 minutes - light shading in figure
dots of sand -
26 minutes - shading - distance
walker
41 min. - heavy contour
nitric + touched on shadows

Even pressure in drawing the (etched) line

Variation in an etched line drawn with a single stroke - is probably managed by repeated touches with a fine point - see Renoir Manet & Pissarro

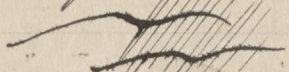
ploughing the copper results in overbiting

* needle pressure? - scrapper with edge (i.e. width) of

stopping out

feathering.

the open & close line



organic lines deeply bitten
veil & shade not deeply bitten -
with little texture

Methods to obtain it -

grounding a bitten area with charcoal to light grey -

tints to be obtained with the scraper & burnisher -

use of the diamond to attain a grey.

Various delicate tints may be obtained with the scraper & the burnisher -

factors -

(plate)

1 perfect sharpening of tools
2 manner of cutting
3 ink - oil - umber.
4 wiping hard or soft
hot or cold
5 cleaning & burnishing
* 6 pressure & resiliency. *

* Etched lines are frequently overbitten, purposely to obtain the beautiful grey quality of intensity

The burnished lines give. The burnisher will reduce the lines in places & give the most delicate gradations -

Benzol followed by whiting & water (to clean)

burnisher with saliva flat down for fine passages.

hold needle upright - press well - perfectly round point.

* even pressure in needling -
hold the point vertically - not like a pencil - clean the drawn lines with a soft brush - the needle must glide, not catch - + must be as + as possible - purity of the line depends on the ∠ of incidence of the point with the copper

clean charcoal paste off the plate - wash it off - as it wears down the bottom of the furrows.

keep the charcoal clean - water - then oil -

the use of a delicate drypoint as a glaze in etching (engraving).

an etching must be original like an improvisation -

freedom of execution and majesty of style -

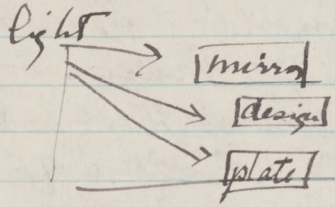
soft copper bites slowly
hard copper bites faster + deeper -

examine etchings + masters for expression of different textures - -

warm temperature makes for pliant work - to place something warm under the plate - to keep it at a soft + uniform temperature - But do not

make the work too soft - cooler - crisper?

to trace with sanguine
to reverse with gelatine
the use of a mirror



cover the plate with very soft paper under the hand

design - margin - if any

a piece of tracing paper on the plate will show the lines as they really are without gleam & irridiation -

~~Dat~~

to transfer -

red paper

lay damp (not too wet as the paper expands ~~shrinks~~ + wrinkles) tracing paper with drawing in lead pencil down on waxed plate & run through press under medium & light pressure. Then warm plate slightly to fix lines.

the tracing paper will expand - then shrink to approx. size -

Laying the Hard Ground -

Even with a good ground, this procedure is very difficult to master so that perfect results are obtained. all sorts of precautions must be taken against dust - either from the body - clothes - hair or surrounding surfaces - as well as from sudden currents of air - the latter may be induced by a brisk rubbing of the right hand on the smock causing dust to rise & strike the plate as it is held face down during or after smoking!

Hard copper might be cleaned in a citric acid. It requires much cleaning in any case to remove the oil film -

The rolls must be cleaned occasionally as the ground incorporates bits of dust or lint —

The temperature of the plate during grounding & smoking must be carefully regulated - the smoking must not scorch - nor allow any lint from cheap tapers (loose cotton wicks) to rise in the flame —

To achieve a brilliant shiny hard black ground - not too hard to draw in - & without pits is a real achievement -

Sometimes it is better to smoke lightly -

Roll while cooling & reheat -

Be careful ? bits ? wax from the candle - etc. etc.

While it is true conventionally & theoretically - (& a good base rule) that pressure counts for nothing with the needle & that one draws vertically with an even pressure - still since a deeper cut will allow the acid to work more quickly a line may acquire variation in this way has a result I am in pass ional sketch where the lines vary in pressure - as different by sharpened needles are taken up.

use jewellers rouge on back
of cartoon to transfer design to aquatint

add a little machine oil
to paint, used to use
dry point lines To prevent
drying & hardening in the
dilitate lines

a Thick pt. produces a tough durable
burr - a thin pt - produces a
frail fine burr

Thick but sharp -

The scraper should always be
used to remove burr - never
the burnisher - which only press
it down into the line &
produces an imperfectly
printing line -

to wipe - after first rag cleaning -
use ball of Paper across the
surface away from worker
& lifting at end -

A good thin drypoint ground (to remove glare) may be instantly laid by running an already charged roller over a warm or hot plate -

← drypoint Victorine Ranch

nude modelled ink drawing (1 session)
water color
soft ground etching (thin light aquatint?)
drypoint etching

Continue Swimmers -

roll nude in hands on stone
hold drypoint nude at 45° & sharpen cone shaped pt -
wipe drypoints (That is to clean before & after printing) with tissue paper instead of cloth

acetic acid seems to clean more slowly than nitric but think dipping drypoints in acid is destroyent as it eats off the burr.

In coating the backs of grounded etch plates / or in covering the spot prevented from being varnished by the hand rise the liquid ground may best be applied when the plate is still hot - but not too hot or the ground boils & becomes brittle - nor too cold or it remains sticky for some time —

a good well-laid hard ground with a tissue paper over it should stand the weight of the hand.

1 Clean plates

2 heavy ink - vine ~~[illegible]~~ burnt umber
Pale & Stand oil
Linseed oil varnish

cold plate from hot -

net - coarse canvas - silk
& muslin -

Clean ink off face of
plate for contrast -

vigorous wiping - not delicate

masonite -

tissue or other paper
plate - proof paper - texture

4 blotters
1 face
2 blankets

a nitric solution of one part in Three and already slightly green - if used not much over 65° F. (or less) will give a slow narrow bite -
The biting will take longer, and eventually widening of lines & lifting of ground at intersections will take place, but within certain limits a very fine & sensitive line will result & can be accented at the end with stronger acid if desired -

Any experimenting with backs of plates, but pits are a nusiance -

I should like to do without the dutch type mordants -

tipping the acid bath to get rid of bubbles by supposing the plate is better than using a feather for various reasons -

note on neat acid (nitric)

* Note: It is a mistake to pour neat acid on the grounded plate - if, for example - it is so low in the bottle that it is difficult to take up with an eye-dropper - One must take up a drop or so with a feather or pour it in a small dish - when needed to complete a plate. If poured on any portion of the ground as

nitric 1:3 for biting
soft ground

work at Story Rd - C.O. - 1969

The characteristic of a nitric line on zinc is a certain violence + unevenness - The elegant line belongs to copper with a slow mordant -

acid for zinc - 1:6 violent
1:9
1:10
1:12 weak

never use acid from a copper bath on zinc - it sets up electrolysis + tears the ground

A small Miro has a brilliant clear etched line + a counterpoint of what seems to be patches of sulphur tone nicely laid with soft edges + a fair intensity - The whole printed clean without smudging -

Bordering wax -

3 lbs. Burgundy pitch
1 lb. yellow beeswax
1 gill sweet oil
melt together & form into strips

pass a heated key along the lower line of a wax-bordered plate to melt the wax & render acid escape impossible.

blue stone	1	a paste to etch through a yellow soap ground.
salt	1	
water		

alloy may bite more quickly but not Bridgeport?
of acids + biting –

Mr. Stanley – engraver

perchloride of iron – (Calif. Tube Co.)

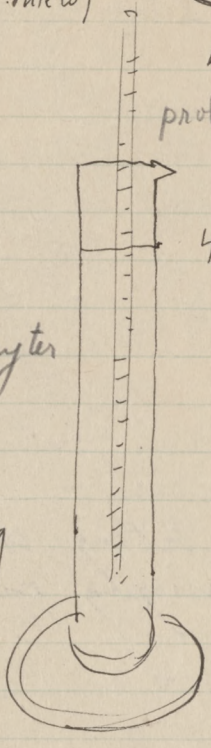
(43°) heavy

Mr. Stanley uses

47° 45° saturated

probably only for hard copper.

hydrometer
Thermometer



25° to 30° – Lumsden
45° – diluted by half – Hayter

60° heat for faster wider biting

a slower bite goes down more straightly.

? more water bites faster

warmer bites faster –

every time you wash the plate (+ do not dry) it bites faster!

time?

add a few drops of perchloride to nitric or vice versa.
or bite with perchloride – follow with nitric – if necessary to widen + deepen

→ a palette it tears thru any imperfections or weaknesses (esp after a long biting) – + badly pits or mars that plate.

brush saliva over the lines with a sable brush - then paint on drops of perchloride or place in bath - saliva the areas you wish to bite.

brush bites quickly. Do not bite as deep as with nitric - the line is fine

stir perchloride with brush - wipe around as the lines darken - brush + see + bite.

sediment with perchloride?
bubbles with nitric.
in feathering nitric it is difficult to maintain unity -
a light biting is good foundation for carrying on in drypoint.

3 obvious ways to vary the line -

1) size of needle-point (+ pressure)
2) biting
3) printing.

it is very important not to overdo any one of these - to the detriment of the unity of the plate.

Beware of the use of pure nitric to bring out passages - it can easily be overdone + split the design -
Be sure all lines not wanted
Emphasized are properly stopped out.
remember planes - + keep them simple + related through linear quality -

stopping out varnish can be made ?
1 part by volume asphaltum ~~pure Gum turps~~ -

Smillie's bath bites pretty fast when warm - or on a hot day - & has an insidious action on the ground unless it (the ground) is very firm - It does produce a fine delicate line - Though possibly will not the character & nitric - However it seems to approximate the Rembrandt delicacy & has a very pure quality. ?

The liquid ground - twice brushed on a hot plate will stand it better than hard ground - but the hard ground had been softened by being worked on in the sun.

I should think it better to use Smillie's under 70° F - & not over 70° - The time would run from around 1 hr - less for very fine - more for deeper line - we used Dey in with S. & continue with Nitric -

lines should be laid only with a view to the biting i.e. the depth of the biting -
the distance apart of the lines having a definite relation - differences in biting must be nicely calculated -

gold lines on the ground look richer and more numerous than the same lines bitten on the copper.

study the biting of closely crossed lines for the best system.

get a good hydrochloric mordant.

practice drawing rt. ∠ & reverse not only for increased constructive power, but for etching in reverse as a habit -

the line must look less heavy than it is to show on the proof -

Smillie'

water 60 oz

hydrochloric (muriatic) 12 oz

Potassium chlorate 2½ oz.

dissolve chlorate in hot water
cool - pour into bottle -
add rest of water + acid.

heat the water by putting the bottle containing it into a pan of water -
boil the water in pan
add chlorate of potash, + see that every crystal is dissolved -
shake the bottle to help -
Then add acid (after cooling.

Dutch Mordant for
soft-ground.

Biting

* nitric ½ = about 20°

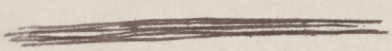
use fresh acid - constantly renewed for surer results -

with the same proportion in Time, values are accentuated more completely and quickly by a strong acid - watch the confluence of lines where this is manifested -

execute fine lines far apart with a cutting point + use tolerably strong acid -

close lines require a moderately sharp needle + mild acid.

mild acid eats in depth = powerful color + relief -

 = 1 line

broad + of great power -

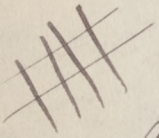
distance tone

light biting but tone for distance -

pass a broad brush
(very fast) charged with
acid at 40° over a
well-worked skey for a fine
grey tint - & instantly
plunge in pure water.

The no. of bitings depend on the
effect desired.

drops of pure acid - lines
spatter golden vapors - operation
finished - 2 applications.



drypt. lines must be drawn
& scraped separately in the opposite
direction to the stroke. to take
line obliquely & avoid closing the burr down

The whole system of etching rests on two kinds of biting with characteristic distinctions.

Flat biting

1 ground
1 bath
1 immersion
1 or several needles to model

1 needle -
close - near + strong
lines apart - far + light

a play of light in distance = lines far apart in light. more closely laid in shadow -

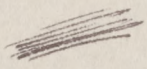
Several points = difference in Thickness of lines

always equal pressure + attack

Biting with Stopping out

1 ground
1 bath
partial bitings
1 point - stop out large masses

several points
close lines delicate
near coarse deep ones



equivalents values of 2 different objects

factors -

1. surrounding temperature
2. strength of the acid
3. no. of partial bitings
4. pressure of the point
5. different thicknesses of the points
6. various kinds of work that can be done with them
7. length of bitings

continual reflection

Other methods:

Etch the simple outline - more or less vigorous -

Then revarnish - resmoke + elaborate

Rembrandt: work out some part of the subject very carefully - without touching other parts - take proof - afterwards go over the same part

with finer lines, and pass on to other parts treating them according to the effect which he desired to reach.

commence with sky - draw trees over

or

commence with trees - draw sky over

the roulette is a poor adjunct to clear needling

use the graver for freshening

avoid rubbing the copper with sandpaper for tints - it is wanting in freshness - Sulphur is preferable for a tint - or see what can be done with the printing -

Manet seems to lay most of the design organically with strong lines first - then he elaborates, fills up & glazes with finer work.
See Adriani prints - & book of Statics.

mottled tints

place a quantity of ordinary ground on a hot plate - charge the dabber unequally with varnish - heat the etched plate - press the (taffeta ?) dabber on the passages to receive the tint - it adheres in an irregular manner leaving the copper bare here & there. Stop out any parts that you wish to protect. Bite in with pure acid - the result will be a curiously mottled irregular tints - sometimes good results -

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Mico sulphur

I think the irregular patches of fine-grain warm tone with rather soft edges on a small Mico plate etched otherwise with a sharp line may have been achieved with sulphur - as it is a tone rather close in quality to that left by ink alone - but of a more granular quality.

Printing Drypoints

Before even taking 1 precious print from a drypoint - ink & wipe & render as perfect as possible - scrape down & remove scratches unnecessary lines etc -

---

2 drypoint methods -

work from greys to blacks - & start full force & reduce to greys - & later cut down -

Rebiting

never rebite more than ¼ time of first biting - hard ground — Prick about passage - then charge a heated dabber from it & lightly work over passage to be rebitten.

* ordinary ground for retouching unsmoked esp. when previous work is deep -

Line additions can be made between bitings without regrounding -

saliva to hold acid on a spot.

* touches of drypt. will soften & push back into another distance - a too strong passage standing out -

Feathering nitric – either less (nitric)
than ½ or half in half – works
well on certain plates, + seems
to retard the action of the acid
just enough to produce a closer
narrower bite – The biting
can be rather well controlled –
+ fresh mordant added – or
parts taken up with the bottles –
Saliva is useful to define
areas + keeps the acid
from running + spreading
in drops – / the acid / bath
is more general + unified +
definite in bite. the feather
gives variety, avoids stopping
out, but requires more
skill to preserve unity
of the plate ½ nitric /
is a little vicious unless
slightly coppered – + quite
cool –)

Rembrandt shows us that
the fine line – (+ point) +
flash ink is the most
perfect manner in
etching – The rarest +
most distinguished ——
in spite of all the

good things with coarse line - brown ink - retroussage + rag wipe Rath have often done since -

try for originality in technique however — but not too complex - see Hayter -

Judgment in biting is the most difficult. So many factors are involved, that feeling is ultimately the only true guide - When trying for a fine bite (especially with perchloride) one must feel the lines with the needle - When the lines are looked at level against the light the relief may be seen - but the blackness of the ground must be discounted & taken into consideration. Underbiting is always a danger in light passages, as it is difficult to regain - Overbiting foregrounds - accents etc. By touching with final nitric & nitric mat must also be carefully controlled, so that the unity & simplicity of the plate must in all cases be preserved —— The scale of biting must have relation to subject - Size of plate & printing instruments -

temperature & strength of acid are basic considerations -

Drypoint. Contains Big Sun plate ?

Sometimes one thinks lines are lost because too much ink is left on the surface - & a skillful clean wipe will reveal them again

Contrasts - pale fine print - clean wiped & linear is best - Vary bur on arms (exterior contour) either with inking or cutting the bur (along the line) But of course it is best to cut the line properly in the beginning with sufficient & subtle variation. The front part of the torso with heavy bur breaks away from the legs with very pale & delicate lines -

contrast of clear outline with bur within form as accent -

contrast of bur outline with delicate scratched modelling inside.

a wide flat pale double line - (Schumacher)

A print is not proved until
say the 5th print - (except
possibly drypoint -) take
time with states - do not
be discouraged -

The classic aspect - pure line
clean wiping not tricks -

The use of points & texture -

Haden drypoint

fine lines - horizontal & close
to create tone with a slight tur.
finesse delicacy & a sharp point

Sometimes the shade is allowed
to become almost solid velvet
but in small areas -

The rest showing light or
lighter & subdued interstices -

preserve life in the shadow -

In drypoint we can draw delicate
lines & remove the burr - if there are
stronger lines to be drawn over them -

Lamp black & tallow & clean with
flat of hand to gauge work -

system – 7 lines –

Rembrandt – fine hot showing similarities to engraving –

broad open lights.

highly developed + less developed parts.

Plate hard ground smoked for out 7 drew dry point –
negative process.

perhaps a thinned liquid ground.
(with chloroform)

Meryon. well spaced lines - his agriatic and decorative line - patterns - the thought and poetic conception - the austere masculine style, and the perfect control of the needle in stating a strong free line or in finest detail - design and delicacy. a much greater etcher than Whistler - more constructive.
Manet Olympia - 2nd state a deep resonant black, and a strange silver in the body and drapery. Either the lines here are ground down to hold little ink - or wiped hard with chalk - for very effect. Coarse lines appeared everywhere in the silver part. An electrifying plate - The torso is almost a blank yet how firm - against the heavily worked background. Bruno has other magnificent Manets.

The Rouault - color - perhaps - liquid ground aqua & dry brush stopping

The Villon copy of Braque.

The Picasso ~~plate~~ print of strips of copper each with a

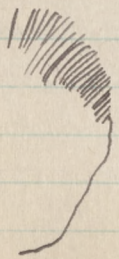
vertical portion of female nude. An even unaccented line - small squares of sleeping heads. The strips were laid side by side on the press.

Then a plate can be divided & different little scenes drawn on it - 5 different artists invited to draw on it. A head by Daumier is on such a plate & is the only known etching by them. Harpignies etc. are alongside.

Soya- aqua- pale brown tint-

Manet aqua-

sets of lines & contour-



Freedom + Style in etching –

It is probable that the highest style in etching consists of the fine open line – cold in tone – that is – black ink on a paper not too warm – all effects that are warmer + more pictorial are less perfectly expressive of the medium which is highly aristocratic in this respect – at once – elegant austere + passionate.

The artificial printing of
Hellathus Corot in Adriani
collection.

Rembrandt Etched work—

The overall design
The solid blocks of forms
in space - total form in
total space - real or implied
planes - planes - planes -
harsh - large - carved
with sets of lines -
plus the intangibles

The whole arises from the
gesture
variety - in the line work -
notice a shadow edge formed
by interlining rather than
cross-hatching - a garment
near the shoulders in this
case - liberal use of points

Manet -
Same tradition - bold +
frontal blocks of form strong
line schemes - modern

Cook & vermeulen

Drypoint

a child's head by Munch - very brief & suggestive. The contour line is almost clear of burr. The hair rather heavily (coarsely) suggested and the features delicately spotted with a velvety accent & a few clear lines - 2 clear lines of contour around the neck spread into the blank plate below - a certain character of line & shape - The printing is clear, delicate & pure.

Rembrandt - a number of linear drypoint studies - a disconnected rhythmical contour enclosing powerful rhythmical forms. The drypoint is not printed to black - the paper a warm tone - the relation of plate space (empty) to line is full & perfect - plenty of space - In order to keep this from being empty the plate is scratched lightly in an interesting way - & also lightly spotted with ink - The contour drawing is done with a single strong line with slight burr - but the ink is not too dark - The interior modelling is freely handled - circular & angular & not conventional - The freedom is an etching freedom & this modelling is done with a vertical point & is pale & wiry in contrast to the strong contour. In the contour where the single line was not successful - a second or even a third line was added - A sense of movement & plane results as well as accent.

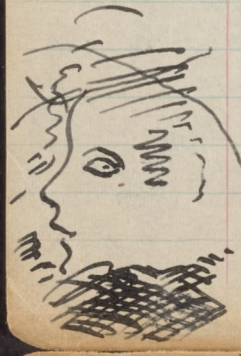
In Rembrandt the drypoint used with the bitten line is used as an accent & depth texture much as a vowel or word accent is used. The style is precise - the lines arrangement superb - The biting exquisite. Rembrandt also uses the pure bitten line very freely & incisively - with great clarity - note the fierce linear structure of lions in action. In the etching certain figures are developed -

Unity of the plate is essential

thus leave large white spaces / empty interior volume - clear areas / paper within the contours - but these are full because / the surrounding lines + are balanced against developed areas -

—

Manet - bitten line - not elegance but the cut line - a line that shows the 'metallic splendor' of the copper - a line engraved in a hard substance - clear spaces - inked spaces - slight agnatint in background tone against / strong bitten line / skirt - / clear wiped areas / flesh with strong single line contours & accents / sharp / metallic - resistant - raised ink line -



Goya - landscape - bitten line - greatest freedom - but construction - superb design.

-

Liebermann - figures in field - illustrative. the bitten line is usually more precise & powerful than the drypoint line - but a good drypoint line - + a Lembruck cast / is very strong - the line can be analyzing / free + sharp.

Corinth -

Manet - Reclining figure

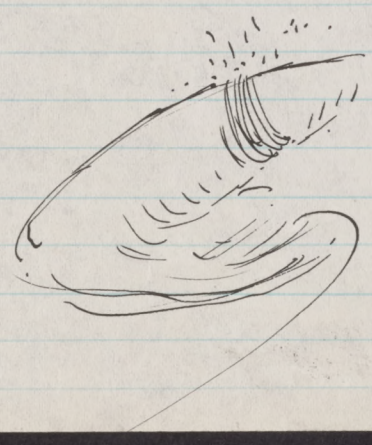
light aquatint - fairly open & irregular
spatter technique - a possibility - but not necessarily right /
or spirits of wine ?
varied in tone possibly through heaviness of application rather
than hitting. Perhaps aqua is bitten only once, &
is confined to the background & couch & shadow of
sleeve.

The etched lines are not over bitten - rather lightly
but well-bitten, & the lines are fine & close in
the darks.

Perhaps only 2 bitings. The contour line
is played against a hatched open contour -
a characteristic of Manet in drawing &
etching, & perhaps learned from Rembrandt.
Lights are interconnected, & a bracelet
break in the contour [illegible] to the background.

The whole is printed in black much
warmed with umber on cream paper.

Goya - Self-Portrait — extra fine aquatint
printed light - (like a 4 0000 Sandpaper).



graving on copper

beware of Brilliantshine + polishes that contain abrasives or acids

plates should be filed or scraped or treated with abrasive away from the inking or grounding table - or the latter should be very carefully cleaned to avoid particles that will scratch the plate later + whiting + polishes should also carefully be cleaned from the inking table - to avoid dust and grains on the plates.

Sandpaper plate / n etch for aqua or sulphur
with hot lines (studies)

Civil Landscapes — (studies?)
figure in landscape

open shading — shading in the same plate

Empty space + full space

use n suppression of local color

final glazes of shade - or strongly lit passages

Linear treatment of block treatment
Turner + mottled lines - Rembrandt

Paper — ~~hand~~ made — old + new —

hard + soft paper require a different degree of dampness
∴ paper should first be put aside

unsized paper highly absorbent — + if very soft material — is an inferior paper — liable to mildew

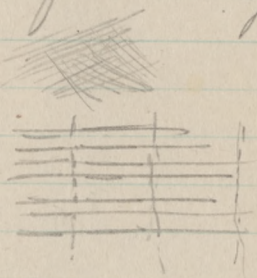
texture on each side
Characteristics of paper in which we may become interested

cotton

linen — strongest + most durable but cotton must be added for intaglio printing

Tub-sized paper is best for etchings —

wove paper
laid paper



1 "Hot pressed"
2 "Not"
3 "Rough"

watermarks on edge

6 factors

Ex- Howell — 30 lbs. med — light tone —
antique laid — soft sized — hot pressed —

old paper (with size more or less perished) printed delicately will take water-color tint nicely — color should be pale — + is absorbed into paper —

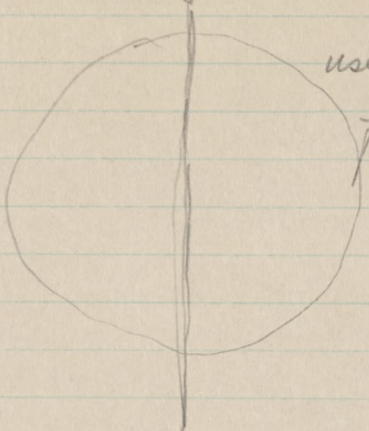
Harpoon - engraving + drypoint -

yellow watercleaf
white Linen Waterleaf -
Reamur

cut with a paper knife - for accuracy + approx a deckle edge

tweezers - lift hairs + specks from damp paper
sharpened to a fine point
layer flicking brush -

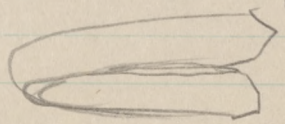
2 dishes - 1 for water 1 for sponge
fine grained sponge - compact shape -



use flat face for paper damping -

tissue paper datter -

paper grips 4" x 2"



closed grip corresponds

if paper has not been skillfully damped - some wells or dryer - or dries with patches or the same sheet - then 12 hrs - at least to bring uniform state about

6 sheets — (lift wet papers with grips)
lay pack face down
damp each on back —
then on face — & place
face downward —
sponge not too wet

heavy watercolor — damp face down
using sponge rather wet and
in straight strokes from left
to right — Do not go over
it or — as waterleaf gets
too wet —
damp again face down —
after ½ hr remove
pack — remake turning
every other sheet end for end

Thin waterleaf damp only once.
Typing sheet face down —

✓ paper is always finally face down - in the path -

tear up all the muslin in advance

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wipe - 1 rag -

Rag - Hand with milk + chalk (palm + ball of thumb)

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rags plate colder than ordinary - finishing quite cold - very quick at end -

hand - quick without smart wipe
reheating cooler than ordinary hot light -

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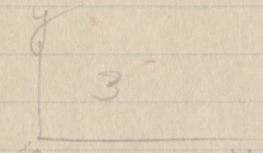
(1) bright rag wipe - plate cold at end -

Rag - clean rag - clean hand etc -

drag ordinary -

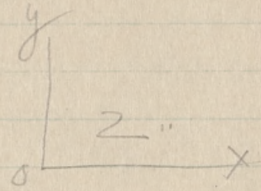
size + shape of a body depends on
rate + direction of movement

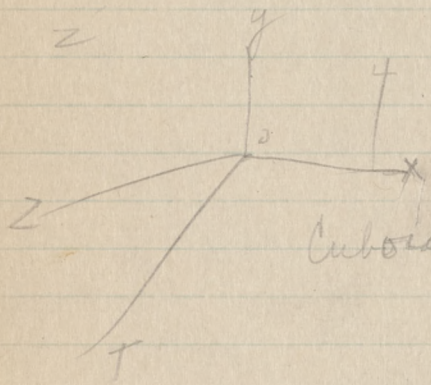
mass + energy



• no dimensions

1•





mass + energy remains same
mass is latent energy

rest energy of objects

speed of light is maximum absolute?

gravitation due to a warp in space time as the 4th dim.